

image data associated with substantially the same phase angle. The preferred embodiments include examples related to 3-D data sets and extended field of view images.

The sketch entitled Figure A in the attachment to this paper gives an example of how multiple frames A1-A5 of all about the same phase angle can be selected and then used to form a composite image. This is quite different from Gandini U.S. Patent No. 5,645,066. Note that Gandini never suggests that the frames used to create 3-D images are to be selected based on the phase of a cardiac cycle. Since the discussion at column 4, lines 6-10 and column 6, lines 22-49 does not call for selection of frames by phase angle, and since Gandini never states that the 3-D images are associated with a selected phase, Applicant submits that the only reasonable interpretation of Gandini is that shown in Figure B of the attached sketch. Note that frames with a variety of phases contribute to the 3-D image. In brief, Gandini does not even recognize the problem solved by this invention.

Proposed amended Claims 24 and 32 are submitted to define the present invention over Gandini. In particular, paragraph (a) of both claims requires that each frame be identified with a respective phase of physiological cycle. This is not disclosed in Gandini. Paragraph (b) of each independent requires that a first image associated with a first phase of the physiological cycle be generated from image data from multiple selected ones of the frames of (a) associated with the first phase of the physiological cycle. As pointed out above, Gandini never generates a composite image (i.e., an image generated from image data from multiple frames) wherein the composite image is associated with any particular phase of the physiological cycle. Instead, frames with a random collection of phases are combined, without attention to phase, to generate the 3-D images of Gandini. This is quite different from paragraph (b) of Claims 24 and 32, which defines the first image as associated with a first phase and as generated from multiple selected ones of the frames associated with that same first phase.

Paragraph (c) of Claims 24 and 32 calls for the generation of a second image associated with a second phase of the physiological cycle from image data from multiple selected ones of the frames of (a) associated with the second phase of the

physiological cycle. For all of the reasons discussed above and in conjunction paragraph (b), the elements of paragraph (c) are not disclosed by Gandini.

Finally, paragraph (d) calls for the displaying of at least the first and second images in sequence to a user.

Applicant submits that amended Claims 24 and 32 clearly define a patentable invention over Gandini and requests that the outstanding rejection be withdrawn. In view of the clear basis of patentability of these independent claims, there is no need to discuss in detail the additional grounds for patentability that are defined by the dependent claims. However, it should be noted that nothing in Gandini relates to extended field of view images (Claims 25 and 33) or frames acquired from substantially coplanar, partially overlapping spatial regions (Claims 28 and 36).

The only other issue in this Application relates to the rejection of Claims 29 and 36 as indefinite. Applicant requests reconsideration of this rejection. The specification describes at page 6, line 13 that the separate frames for an extended field of view embodiment are coplanar, and Figure 6 shows the frames 70, 72, 74 as partially overlapping. Applicant submits that given this supporting disclosure, Claims 28 and 36 are clear and definite.

Conclusion

Applicant submits that in view of the foregoing amendments and remarks, all of the claims pending in this application are now in condition for allowance.

Reconsideration is respectfully requested.

Respectfully submitted,



William A. Webb
Registration No. 28,277
Attorney for Applicant

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4218